Illinois Environmental Protection Agency
Douglas P. Scott, Director

TMDL Development for Cahokia Canal/ Horseshoe Lake Watershed and Cahokia Creek/ Holiday Shores Lake Watershed

Background

Over the last 30 years, waters in Illinois have been monitored for chemical, biological and physical conditions. In some cases, the conditions of those rivers and lakes fall short of the need to support basic water quality use goals. These waters are deemed impaired since they cannot meet use expectations set for them under state and federal law. When this happens Total Maximum Daily Load (TMDL) reports are developed for impaired waters to determine the maximum amount of a pollutant a water body can receive and still meet water quality standards and support its designated uses. Designated uses include aquatic life, public water supply, swimming, recreation, fish consumption, and aesthetic quality.

TMDLs are done in stages to allow for public involvement and input. TMDL development in Illinois begins with the collection data—water quality, point source discharge, precipitation, soils, geology, topography, and land use—within the specific watershed. All impaired water body segments within the watershed are identified, along with potential pollutants causing the impairment. Illinois EPA determines the tools necessary to develop the TMDL. In most cases, computer models are used to simulate natural settings and calculate pollutant loads. Along with data analysis, model recommendations are made in the first stage of the TMDL. This information is presented at the first public meeting.

The appropriate model or models are selected based on the pollutants of concern, the amount of data available and the type of water body. In some cases, additional data needs to be collected before continuing. The model is used to determine how much a pollutant needs to be reduced in order for the water to be meeting its designated uses. Another public meeting is held to present this information.

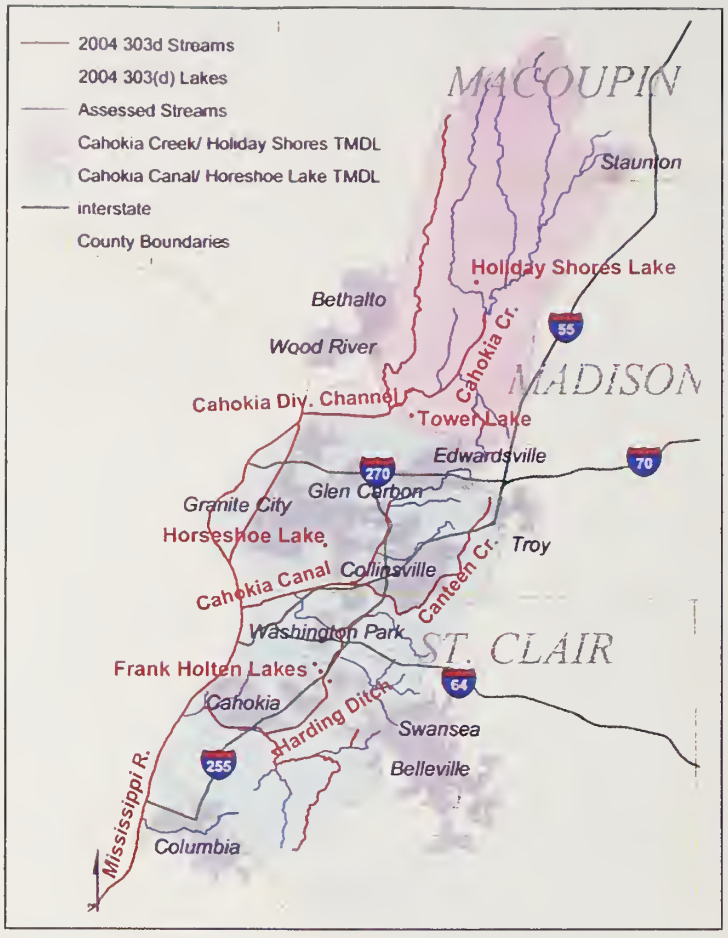
An implementation plan is developed for the watershed spelling out the actions necessary to achieve the goals. The plan can specify limits for point source dischargers and recommend best management practices (BMPs) for nonpoint sources. Another public meeting is held to discuss this plan and to involve the local community. Commitment to the implementation plan by the citizens who live and work in the watershed is essential to success in reducing the pollutant loads and improving water quality.

Waterbody Designated Uses and Impairments

Water Body	*Impaired Designated Use*	*Impairments Addressed by TMDL*
Cahokia Canal	Aquatic Life	Dissolved Oxygen
Horseshoe Lake	Aquatic Life, Aesthetic Quality	Phosphorus, pH, Excess Algal Growth, TSS
Harding Ditch	Primary Contact	Fecal Coliform
Frank Holten Lake 1	Aesthetic Quality	Phosphorus, Excess Algal Growth, TSS
Frank Holten Lake 2	Aesthetic Quality	Phosphorus, Excess Algal Growth, TSS
Frank Holten Lake 3	Aesthetic Quality, Aquatic Life	Phosphorus, Excess Algal Growth, TSS, Dissolved Oxygen
Canteen Creek	Aquatic Life	Manganese

Cahokia Creek	Primary Contact	Fecal Coliform
Cahokia Diversion Canal	Aquatic Life	Copper, Dissolved Oxygen
Holiday Shores	Aesthetic Quality	Manganese, Phosphorus, Excess Algal Growth
Tower Lake	Aesthetic Quality	Phosphorus, Excess Algal Growth

Watershed Map



Watershed Information

The Cahokia Creek/ Holiday Shores Watershed drains 126,000 acres. The Cahokia Canal/ Horseshoe Lake Watershed drains 181,700 acres. Both watersheds drain into the Mississippi River.

Cahokia Creek/ Holiday Shores is 65 percent agricultural land, 18 percent is upland forest, and 9 percent is urban.

Cahokia Canal/ Horseshoe Lake is 40 percent agricultural land, 33 percent urban and 11 percent upland forest.

Potential Pollutant Sources

There are point source discharges (e.g. municipal or industrial wastewater treatment plant) in the watershed. Potential nonpoint sources include agriculture, animal operations, septic systems and natural sources.

For more information on this specific TMDL or the TMDL program, visit the Illinois EPA website at http://www.epa.state.il.us/water/tmdl/.

For information on the assessment of Illinois waters, refer to the Integrated Report and 303(d) List at http://www.epa.state.il.us/water/tmdl/303d-list.html.

If you have any questions, please contact Jennifer Clarke by phone at 217/782-3362 or email at Jennifer.Clarke@epa.state.il.us.

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